

Application No.: 09/672,987

Atty Docket: HBES 1023-1

REMARKS

In the Office Action dated 04 April 2005, the Examiner has rejected claims 4-6, 9, 10, 14, 17-21 and 24. Claims 4 and 18 are canceled. Claims 5, 6, 9, 10, 14, 17, 19-21 and 24 are currently pending in this application.

Claim Rejections Under 35 USC § 102

Claims 4 and 18 were rejected under 35 USC 102(b) as anticipated by Wilder et al. (U.S. Patent No. 5,262,871).

Claims 4 and 18 are canceled, rendering the rejection moot.

Claim Rejections Under 35 USC § 103

Claims 5, 14, and 24 were rejected under 35 USC 103(a) as unpatentable over Wilder et al. (U.S. Patent No. 5,262,871) in view of Palcic et al. (U.S. Patent No. 5,827,190).

Claim 5 is amended so that the image processor detects whether there is a low "incident" light condition. Support is found at least in Figure 1 and page 4 of the specification.

Claim 5 as amended includes the following limitation:

"an image processor that operates the circuit and selects between the full-resolution and low-resolution modes of the circuit to capture an image, where the image processor detects whether there is a low incident light condition, and if so, captures the image using the low-resolution mode of the circuit"

The cited combination of Wilder et al. and Palcic et al. does not disclose the limitation quoted above. The Examiner noted at page 4 of the January 4, 2005 Office Action that Wilder et al. "does not explicitly teach detecting a low light condition, and if so, capturing the image using the low-resolution mode of the circuit." Wilder et al. fails to teach the limitation quoted above.

Palcic et al. also fails to disclose the limitation quoted above. Palcic discloses at column 4, lines 6-11 an image sensing means having a light sensitivity that "can be increased" to acquire low resolution images at low fluorescent light intensities. However, the image sensing means of Palcic is not a device which "detects whether there is a low incident light condition" as claimed in the limitation quoted above. Palcic

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et al. discloses at column 11, lines 37-43 and column 12, lines 58-62, changing the resolution of the endoscope image from the CCD sensor based on the type of light the endoscope is using to illuminate tissue. Figure 5 of Palcic et al. shows that the same controller which is connected to the light source also controls the CCD sensor. An endoscope as disclosed in Palcic et al., of course, operates "where the sun doesn't shine" without "incident light".

Thus, claim 5 as amended is patentable over the cited references.

Claim 14 is amended to claim detecting "incident" light conditions. Support is found at least in Figure 1 and page 4 of the specification.

Claim 14 as amended includes the following limitation:

"detecting incident lighting conditions and selecting the low-resolution mode if low-light levels are detected"

The cited combination of Wilder et al. and Palcic et al. does not disclose the limitation quoted above. The Examiner noted that Wilder et al. "does not explicitly teach detecting a low light condition, and if so, capturing the image using the low-resolution mode of the circuit." Wilder et al. fails to teach detecting incident lighting conditions. Palcic et al. also fails to disclose the limitation quoted above. The Palcic endoscope has a controller which changes the endoscope image resolution based on the type of outgoing light generated from the endoscope probe, and not based on "detecting incident lighting conditions".

Thus, claim 14 as amended is patentable over the cited references.

Claim 24 is amended to claim a means for detecting "incident" lighting conditions. Support is found at least in Figure 1 and page 4 of the specification.

Claim 24 as amended includes the following limitation:

"means for detecting incident lighting conditions and selecting the low-resolution mode if the incident lighting conditions disfavor the high-resolution mode"

The cited combination of Wilder et al. and Palcic et al. does not disclose the limitation quoted above. The Examiner noted that Wilder et al. "does not explicitly teach detecting a low light condition, and if so, capturing the image using the low-resolution mode of the circuit." Wilder et al. fails to teach a means for detecting incident lighting conditions. Palcic et al. also fails to disclose the limitation quoted above. The Palcic endoscope has a controller which changes the endoscope image resolution

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based on the type of outgoing light generated from the endoscope probe, and not based on "Incident lighting conditions".

Thus, claim 24 as amended is patentable over the cited references.

Because claims 5, 14, and 24 are patentable over the cited references, applicants respectfully request withdrawal of the 35 USC 103(a) rejection from claim 5, 14, and 24.

Claims 6 and 17 were rejected under 35 USC 103(a) as unpatentable over Wilder et al. (U.S. Patent No. 5,262,871) in view of Kuroiwa et al. (U.S. Patent Application Publication No. 2001/0017685).

Claim 6 Includes the following limitation:

"an image processor that operates the circuit and selects between the full-resolution and low-resolution modes of the circuit to capture an image, where the image processor detects whether there is a low power condition, and if so, captures the image using the low-resolution mode of the circuit"

The cited prior art references do not teach or suggest the limitation quoted above. The Examiner noted that Wilder et al. "does not explicitly teach detecting a low light condition, and if so, capturing the image using the low-resolution mode of the circuit." To supply the teaching or suggestion missing from Wilder et al., the Examiner created an Official Notice at page 7 of the January 4, 2005 Office Action that "if a low power condition is detected, part of the circuitry can be made off in order to reduce the power consumption thereby saving battery."

The Federal Circuit's standard In re Lee, applies to the Examiner's evidence and reasoning. The MPEP, Section 2144.03, provides guidance as to what more the Examiner must provide:

"If the applicant adequately the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained."

Also, 37 CFR 1.104(d)(2) provides: "When a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the

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applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons."

Thus, the Examiner's reliance on Official Notice requires evidence and reasoning that can be reviewed on appeal in the form of an affidavit.

Applicants traverse the Examiner's application of Official Notice to the limitation quoted above. The Official Notice is irrelevant to the limitation quoted above, which specifies that the "image processor" detects whether there is a low power condition, and the Official Notice fails to mention that an "image processor" detects whether there is a low power condition. Also, the Official Notice is irrelevant to the limitation quoted above because the limitation specifies that the response to detecting a low power condition is to use a "low-resolution mode", whereas according to the Official Notice the response to detecting a low power condition is to turn off circuitry. Thus, a prima facie case of obviousness was not established, because the cited references fail to teach or suggest the limitation quoted above, and "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP Eighth Edition, Revision 2, pages 2100-129 and 2100-133.

The Examiner failed to provide a motivation to modify the image sensor of Wilder et al. so that the image sensor of Wilder et al. "detects whether there is a low power condition, and if so, captures the image using the low-resolution mode of the circuit"; Applicants traverse any statement that the Examiner provided any such motivation. In fact, the motivation to combine which was provided by the Examiner would result in an unpowered device incapable of taking any pictures, let alone low resolution images. After relying on Wilder et al. for the teaching or suggestion of a circuit that "selects between the full-resolution and low-resolution modes", the Examiner relied on a motivation of reducing the power consumption to save battery power in order to combine Wilder et al. with Official Notice. However, based on the Examiner's own Official Notice that "if a low power condition is detected, part of the circuitry can be made off in order to reduce the power consumption thereby saving battery", the motivation of reducing power in order to combine Wilder et al. with Official Notice would result in a circuit that reduced power by cutting off power, rather than switching resolution modes, because cutting off power saves the most power, and because the Official Notice discloses cutting off power rather than switching resolution modes.

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Assuming *arguendo* both the feasibility of such a combination and that the Examiner set forth a teaching or suggestion somewhere that a response to detecting low power is switching to a low resolution mode, the result of the Examiner's motivation to combine would be a circuit that "selects between the full-resolution and low-resolution modes" and turned itself off upon detecting a low power condition. Thus, the Examiner has not provided a motivation to modify the image sensor of Wilder et al. so that the image sensor of Wilder et al. "detects whether there is a low power condition, and if so, captures the image using the low-resolution mode of the circuit".

Moreover, the Examiner has not offered any evidence of motivation to combine the image sensor of Wilder et al. with the Official Notice to produce the claimed combination. It is fundamental, as indicated in MPEP § 2143.01, that the Examiner rely on some evidentiary quality suggestion to produce the claimed combination:

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

This section of the MPEP cites the no-longer recent case *In re Lee*, in which the Federal Circuit clarified the need for evidentiary quality support of an Examiner's factual basis for finding a teaching, suggestion or motivation in the prior art (as opposed to the Examiner's opinion), 277 F.3d at 1343-44:

As applied to the determination of patentability *vel non* when the issue is obviousness, "it is fundamental that rejections under 35 U.S.C. § 103 must be based on evidence comprehended by the language of that section." *In re Grasselli*, 713 F.2d 731, 739, 218 U.S.P.Q. (BNA) 769, 775 (Fed. Cir. 1983). ... "The factual inquiry whether to combine references must be thorough and searching." *Id.* It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. [citation omitted] The need for specificity pervades this authority. See, e.g., *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2D (BNA) 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for

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combination in the manner claimed"); *In re Rouffet*, 149 F.3d 1350, 1359, 47 U.S.P.Q.2D (BNA) 1453, 1459 (Fed. Cir. 1998) ("even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious."); *In re Fritch*, 972 F.2d 1260, 1265, 23U.S.P.Q.2D (BNA) 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references"). ... In its decision on Lee's patent application, the Board rejected the need for "any specific hint or suggestion in a particular reference" to support the combination of the Nortrup and Thunderchopper references. Omission of a relevant factor required by precedent is both legal error and arbitrary agency action.

Under *In re Lee*, it is not enough for the Examiner to announce the apparent advantage of the claimed invention and rely on his own announcement derived from the Official Notice, in the absence of some evidentiary quality teaching or suggestion, as motivation to combine two references. No evidentiary quality support for combining references is found in this rejection.

Finally the Examiner attempts to combine Wilder and Official Notice with Kuroiwa, relying on Kuroiwa for the teaching or suggestion that "low resolution images may be taken". This final combination of Wilder and Official Notice with Kuroiwa creates a quiescent device – a circuit that "selects between the full-resolution and low-resolution modes" that turns itself off upon detecting a lower power condition. The Examiner has attempted to rely on Kuroiwa for the teaching or suggestion of a circuit which has turned itself off upon detecting a low power condition, and can still take low resolution images in the off state. Applicants traverse any finding of any such teaching or suggestion in Kuroiwa. A prima facie case of obviousness was not established, because the cited references fail to teach or suggest the limitation quoted above, and "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP Eighth Edition, Revision 2, pages 2100-129 and 2100-133.

Thus, claim 6 as amended is patentable over the cited references.

Claim 17 includes the following limitation:

"detecting power conditions and selecting the low-resolution mode if insufficient power is available to capture an image with the high-resolution power"

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A prima facie case of obviousness was not established, because the cited references fail to teach or suggest the limitation quoted above, and "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP Eighth Edition, Revision 2, pages 2100-129 and 2100-133. Also, the Examiner has not provided a motivation to modify the image sensor of Wilder et al. so that the image sensor of Wilder et al. performs "detecting power conditions and selecting the low-resolution mode if insufficient power is available to capture an image with the high-resolution power". Finally, the Examiner has improperly attempted to rely on Kuroiwa for a teaching or suggestion of a circuit which has turned itself off upon detecting a low power condition, and can still take low resolution images in the off state, where no such disclosure exists in Kuroiwa.

Thus, claim 17 as amended is patentable over the cited references.

Because claims 6 and 17 are patentable over the cited references, applicants respectfully request withdrawal of the 35 USC 103(a) rejection from claim 6 and 17.

Claims 9, 10, and 19 were rejected under 35 USC 103(a) as unpatentable over Wilder et al. (U.S. Patent No. 5,262,871) in view of Tse (U.S. Patent No. 5,477,345).

Claim 9 as amended includes the following limitation:

"wherein in the low resolution mode, at least two same colored photocells are read into a combined output signal, the combined output signal excluding any contribution from any differently colored photocell at least partly positioned between the same colored photocells."

Support for the amendment is found at least in Figs. 5 and 6 and page 13, line 18 to page 16, line 14 of the specification.

The cited prior art references do not teach or suggest the limitation quoted above. In fact, Wilder et al. teaches away from the limitation quoted above by specifying that contiguous, adjacent columns area read, regardless of the position of differently colored pixels, as follows:

"The combinatorial decoder output signals CB1 through CB64, generated in response to the most significant address signals A1 through A6 specify one binary decoder section BD1 through BD64, and hence

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specify a particular set of eight adjacent column conductors Xj" Wilder et al., column 8, lines 47-53.

The cited combination fails to disclose the limitation quoted above, and the Wilder et al. reference teaches away from any combination with art that would disclose the limitation quoted above.

Thus, claim 9 as amended is patentable over the cited references.

Claim 10 depends from claim 9 and is patentable over the cited references for at least the same reasons.

Claim 19 as amended includes the following limitation:

"combining the electrical charges of each group's photocells together; and converting each group's combined electrical charges into a digital signal, the combined electrical charges excluding any contribution from any differently colored photocell positioned at least partly positioned between the same colored photocells."

Support for the amendment is found at least in Figs. 5 and 6 and page 13, line 18 to page 16, line 14 of the specification.

The cited combination fails to disclose the limitation quoted above. Wilder et al. fails to disclose limitation quoted above, and teaches away from the limitation by specifying that contiguous, adjacent columns area read, regardless of the position of differently colored pixels.

Thus, claim 19 as amended is patentable over the cited references.

Because claims 9, 10, and 19 are patentable over the cited references, applicants respectfully request withdrawal of the 35 USC 103(a) rejection from claim 9, 10, and 19.

Claims 20 and 21 were rejected under 35 USC 103(a) as unpatentable over Wilder et al. (U.S. Patent No. 5,262,871) and Tse (U.S. Patent No. 5,477,345) as applied to claim 19 and in further view of Lin et al. (U.S. Patent No. 6,642,962).

Claims 20 and 21 depend from claim 19 which as amended includes the following limitation:

"wherein in the low resolution mode, at least two same colored photocells are read into a combined output signal, the combined output signal excluding any contribution from any differently colored photocell positioned on any output line at least

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partly positioned between any two of the same colored photocells read into the combined output signal.”

The cited combination fails to disclose the limitation quoted above. Wilder et al. fails to disclose limitation quoted above, and teaches away from the limitation by specifying that contiguous, adjacent columns area read, regardless of the position of differently colored pixels.

Thus, claims 20 and 21 are patentable over the cited references.

Because claims 20 and 21 are patentable over the cited references, applicants respectfully request withdrawal of the 35 USC 103(a) rejection from claims 20 and 21.

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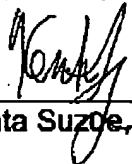
CONCLUSION

Applicants respectfully submit that the pending claims are now in condition for allowance and thereby solicit acceptance of the claims, in light of these amendments.

The undersigned can ordinarily be reached at his office at (650) 712-0340 from 8:30 to 5:30 PST, Monday through Friday.

Respectfully submitted,

Dated: 04 April 2005



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